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ABSTRACT

This occasional paper consists of three essays devoted to evaluation, inquiry, and local planning in federal vocational legislation. In their paper entitled "Evaluation and Accountability in Federal Vocational Legislation," Jerome Moss, Jr. and George H. Copa propose a rationale and a set of recommendations for federal legislation dealing with evaluation and accountability in vocational education. The second paper, "Inquiry as a Means of Reform and Renewal in Vocational Education," by Jerome Moss, Jr., examines the need for inquiry; outlines some guidelines for federal investment in inquiry; and proposes a series of legislative recommendations pertaining to authorization, inquiry for reform, and inquiry for renewal. In his essay entitled "Local Planning in Federal Vocational Legislation," George H. Copa discusses the following topics: the nature of planning, local planning decisions in vocational education, the context for local planning in vocational education, the mission of and performance requirements for vocational education, time horizons and factors to consider in planning vocational education, and implications for local planning recommendations in federal vocational legislation. (MN)

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EVALUATION, INQUIRY AND LOCAL PLANNING IN FEDERAL VOCATIONAL LEGISLATION

OCCASIONAL PAPER NO. 1

Jerome Moss, Jr.
and
George H. Copa

University Council for Vocational Education

October, 1982

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FOREWORD

An important purpose of the University Council for Vocational Education is to "provide a voice for universities regarding points of view and common sense propositions on a variety of issues confronting vocational education...."* One way that purpose can be achieved is by the publication of papers dealing with critical issues in the field so that discussion about them will be stimulated. Hopefully, the discussion will result in more satisfactory solutions.

The three papers which comprise this publication are not Council policy. They have never been submitted for Council approval. Initially, they were prepared in 1980 and 1981 at the invitation of Gene Bottoms, Executive Director, American Vocational Association. At that time the Association was in the process of formulating a policy statement about the reauthorization of federal legislation for vocational education. The papers were intended to provide legislative recommendations dealing with the topics of evaluation, research and development (inquiry), and local planning. Of equal importance, each of the papers was to provide a rationale for the recommendations it proposed.

As revised for this publication, the three papers are obviously related. They all deal with means for stimulating qualitative improvements in vocational education, and they have been written by two persons with quite similar perspectives. Thus, while the topics covered do not encompass the full range of means for program improvement (personnel development, for example, is not treated), and the papers were prepared separately, they convey a sufficiently consistent philosophic position to warrant their presentation as a single publication.

Council members hope that the publication will serve its purpose; it will generate debate and new ideas that will result in more effective federal policy and, ultimately, improved programs of vocational education.

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* "By-laws for University Council for Vocational Education," 7/26/79.

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EVALUATION AND ACCOUNTABILITY

IN

FEDERAL VOCATIONAL LEGISLATION

Jerome Moss, Jr. and George H. Copa[1]

Introduction

This essay proposes a rationale and a set of recommendations for federal legislation dealing with evaluation and accountability in vocational education. The logic employed is straightforward. First, definitions of "evaluation" and "accountability" are posited in order to clarify our meaning of these sometimes confusing terms. The definitions provide a framework for thinking about the topic of the paper. Second, in order to identify more clearly what is to be evaluated, some characteristics of vocational education are described that appear especially salient from the perspective of the federal government. Third, the principal reasons for the federal government's interest in and concern about vocational education are set forth and examined briefly so as to specify more precisely the ends and means of evaluation and accountability conducted as a federal requirement. Fourth, recommendations for the contents of legislation are then proposed.

Consistent with the above outline, the major sections of the paper are entitled as follows: (a) What are evaluation and accountability? (b) What is to be evaluated: A view of vocational education. (c) Bases for the federal government's concern about evaluation and accountability. (d) Evaluation and accountability recommendations for vocational education legislation. (e) Summary.

In building a rationale and formulating recommendations no attention has been given to existing legislation. No assumptions have been made about the adequacy or appropriateness of present evaluation and accountability requirements. Rather, the focus has been entirely on what the authors believe should be. Interestingly, the outcomes can hardly be considered revolutionary. They are best seen as evolutionary, and (we believe) completely realistic in terms of both their political acceptability and practical utility.

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[1]Drs. Moss and Copa are Professors in the Department of Vocational and Technical Education, University of Minnesota.

What Are Evaluation and Accountability?

Evaluation is a process of gathering, analyzing and interpreting information for the purpose of making better judgments about previous actions.

These judgments, in turn, are used as one input to subsequent decisions (e.g., planning) designed to improve vocational programs. Thus, evaluation is a part of the planning, acting, evaluating cycle. Evaluation differs from planning in that planning results in decisions about future actions while evaluation helps make judgments about previous actions.

Accountability is a particular kind of evaluation which gathers, analyzes and interprets information for the purpose of comparing and making judgments about controllable discrepancies between intentions and actions.

Accountability is a form of compliance monitoring in which "blame (and other possible consequences) can reasonably be associated with discrepancies (e.g., when controllable actions do not conform to intentions). Accountability may result in a judgment, for example, about the extent to which a program has been conducted in accordance with the conditions under which funds were awarded. It presumes that blame can reasonably be attached to a discrepancy and program operators "held accountable" when the conduct of the program is within her/his control. This definition of accountability recognizes that there can be many factors which influence accomplishments over which vocational education program operators have little or no control. Since it makes little sense to hold program operators responsible for the effects of these uncontrollable factors, it is recommended that the focus of accountability be on "actions taken" as distinguished from "accomplishments".

What Is To Be Evaluated:

A View of Vocational Education

What is to be evaluated is, of course, vocational education. But, what is vocational education? How should the federal government think about it? What are its ends, means and other relevant characteristics? Figure 1 and the following paragraphs describe a simplified view of vocational education, without including all of the details and feedback mechanisms, that provides a useful way of perceiving it for evaluation purposes.

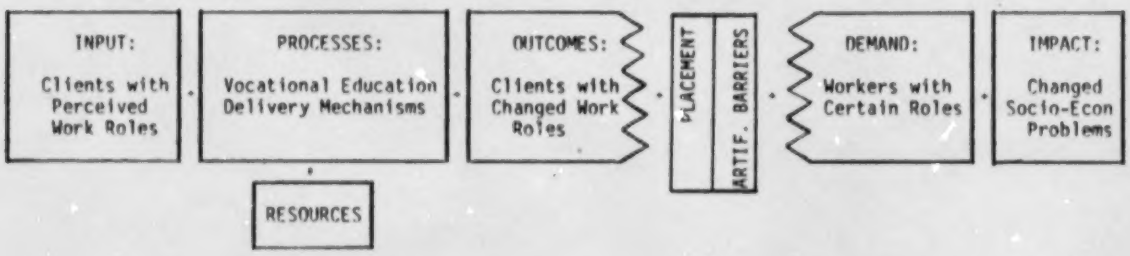

Figure 1. A View of Vocational Education

Input: Clients With Perceived Work Roles

Potential clients of vocational education include all youth and adults who desire publicly-supported vocational education and who can benefit from it, including those for whom program modifications and special services are required to provide a reasonable opportunity for success. Clients may be characterized for educational planning purposes by their (a) number at a given time and geographic location, (b) occupational interests (according to occupational area), (c) career development stage (according to their need for awareness/exploratory experiences, preparatory or retraining experiences, updating or upgrading experiences), and (d) abilities (functional readiness to undertake the desired education).

Clients may also be classified by age, sex, ethnic background and poverty level, as well as by their disadvataged and/or handicapped status, but categories like these help in assessing discrimination rather than serving educational planning purposes; they describe who the client groups are in the aggregate, but are not always helpful in identifving what the educationally relevant needs are of the specific individuals for whom programs must be planned.

Outcomes: Clients With Changed Work Roles

Outcomes are the changes made in the individual as a result of the experiences provided through vocational education delivery mechanisms. They are best conceived as the value added to (or taken from) the individual (Evans and Hunter, 1979). The desired outcomes of vocational education -- the changes desired in the individual -- have never been completely agreed upon by the profession, yet in the eyes of society as a whole they constitute the compelling reasons why vocational education continues to be justified and supported as a part of the public education enterprise. For example, one expression of desired outcomes (subscribed to by the authors) is to:

1. Enhance the client's satisfaction with her/his occupational choice (i.e., occupational satisfaction), and

2. Increase the client's occupational productivity (e.g., employer satisfaction)

3. In an occupation(s) that will have potential utility in the work force.

These goals are to be achieved within the constraints of providing equal access for individuals to vocational programs, which operate in accordance with democratic principles and processes.

Desired outcomes, such as the above, comprise the keystone that defines, supports, and guides the development of the vocational education system. However, since clients' career development stages and readiness for vocational education experiences differ, and the time available to provide those experiences is limited, it is not reasonable to expect that all vocational programs should seek, nor that all clients should attain, the full set of desired

outcomes or the same level of achievement of the outcomes. Instead, some programs may be directed to a more limited, albeit consistent, set of outcomes, and students' achievement should always be measured by the extent to which their relevant capacities have been improved (value added). For instance, some clients may need exploratory occupational experiences at a particular time in their career development. Programs provided for this purpose should serve to enhance clients' satisfaction with their future occupational choice, but would not necessarily affect their productive capacity. Furthermore, unless the concept of value added, (gains made by individuals), is used in assessing the worth of vocational programs, there will be an inevitable conflict between society's demand for equal program access and the desired outcome of occupational satisfaction on the one hand, and its desire for efficiency and the desired outcome of occupational satisfactoriness on the other hand. Vocational educators will not enthusiastically recruit lower ability students as long as program planning assumes that all clients start at the same ability level and that success is measured by the efficiency with which absolute standards are met; fixed levels of occupational performance can be attained much more speedily by working with high ability, highly motivated students.[2]

Actual outcomes result from the interaction between the client and the experiences provided through the vocational delivery mechanism. In addition to outcomes that are related directly to desired outcomes, the educational process yields concomitant outcomes, e.g., staying in school, social maturity. Each of the accompanying effects on personal and/or educational development may be desirable or undesirable. Therefore, to assess a particular vocational programs's worth, the net value to individuals of the total set of outcomes, direct and concomitant, desirable and undesirable, should be compared with the net value of outcomes which could have been achieved by an alternate set of activities foregone because of the time (and other resources) devoted to that vocational program.[3]

It seems self-evident, however, that as long as work remains an integral part of our culture, thereby retaining its pervasive influence upon the lives of individuals, some form of education for the work role --some kind of delivery mechanism with outcomes such as those stated above --will remain essential to society. This is the compelling reason why, even though no one specific set of desired outcomes has been agreed upon, vocational education continues to be justified and supported as a part of the public education enterprise.

Processes: Vocational Education Delivery Mechanisms

The delivery mechanisms for vocational education may be thought of as a network of semi-autonomous subsystems operating in multiple dimensions, such

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[2]It is possible to prescribe realistic minimum requirements for the satisfactory performance of all clients in a program as long as evaluation of the program is based upon the value added by individuals.

[3]Many outcomes, like student achievement, can be measured most accurately just before the client leaves the vocational program.

as (a) levels of operation and decision-making (individual, class, school, state, federal), (b) educational levels (secondary, postsecondary, adult), (c) types of institutions (specialized, comprehensive), and (d) funding sources (local, state, federal). As Henry David put it, "It (vocational education) is a congery of different systems and not a single system; it is decentralized and diversified" (David, 1980).

The delivery mechanisms of vocational education are also complex. That is, the resources and processes of vocational education not only bear directly upon the educational experiences of the individual client, but interlocking subsystems have been developed to support the clients' educational experiences. Teacher education and research and development, for example, are critical to the quality and effectiveness of each client's educational program, but are not ordinarily carried out by direct interaction with the client. Similarly, local, regional and state institutional structures and governance patterns for vocational education interact even less directly with clients, but are presumed to play an important role in the long range efficiency and effectiveness of educational programs. Finally, even more distant from regular interaction with clients, the vocational education delivery mechanisms have developed intersystem relationships with other employment-related education and training mechanisms, such as employer-operated training, CETA, apprenticeship, and the armed services. These relationships also contribute to the capacity of the vocational mechanism. Each of these interlocking subsystems, from teacher education to other forms of employment-related training and education, has its own particular set of desired oucomes, the achievement of which, in turn, presumably contributes to the efficiency and/or effectiveness of clients' vocational education experience. Because they each have their own set of desired outcomes, each of these subsystems demands its own evaluative design and effort.

The decentralized, diversified, and complex character of vocational education delivery mechanisms means that many individuals and agencies are involved in making many different kinds of judgments and decisions about the processes of vocational education. The import for evaluation is that (a) delivery mechanisms almost inevitably vary widely from place to place in resources, quality, and efficiency, (b) few generalizations about program operation hold true nationally, (c) change is uncertain and erratic, (d) prescriptions for improving "the system" should be advocated cautiously and applied with extreme sensitivity, and (e) since resources come from many sources (no one source pays the fiddler), no one source can or should "call all the tunes."

Placement, Artificial Barriers, and Demand

The function of placement efforts by the school and other agencies is to overcome artificial barriers to clients' further education and/or employment and help make the best match between their changed work role and society's demand for workers with certain roles. Figure 2 depicts four characteristics that should be considered in optimizing the match. (They are the same characteristics that are used to plan vocational programs.) Since both individuals and labor force requirements are constantly changing, the matching

process is dynamic -- correspondence one day may become a mismatch the next day.

WORKERS		LABOR FORCE
1. Number, Location	◄——►	Number, Location
2. Occupational Interests	◄——►	Occupational Satisfiers
3. Career Development Stage	◄——►	Immediacy of Demand
4. Abilities	◄——►	Ability Requirements

Figure 2. Characteristics that Match Workers with Labor Force Demand

Impact: Changed Social and Economic Problems

Because of the importance of work in our society, when the desired outcomes of the vocational delivery mechanisms on individuals are aggregated it is logical to assume that the total impact will affect some contemporary social and/or economic problems. The more effectively the desired outcomes are attained by each individual, and the larger the number of individuals involved, the greater the anticipated impact on society as a whole. There is, in one sense, a "ripple effect" of vocational education which converts the value added to individuals to an aggregated effect (impact) on society as a whole. Thus, while desired outcomes are the sine qua non of vocational education, their potential impacts provide special reasons why the federal government may wish to support vocational education at a higher level than other important kinds of education at a particular time.

There are, in fact, a great many potential impacts resulting from vocational education -- some likely to be undesirable as well as desirable. Those that are considered important are a function of the extant socio-economic context and are likely to change over time. Currently, the federal government perceives certain urgent national problems which the aggregated outcomes of vocational education are likely to help alleviate. They include the need to increase worker productivity, to increase youth employment, to speed the development of new energy resources, and to improve the national defense.

It is important to note that states and local communities also have social and economic problems which vocational education may impact, and that these may not be the same as the urgent problems perceived at the federal level. States and/or local communities might then wish to assess different impacts,

and even design vocational mechanisms with certain unique characteristics that are seen as especially helpful in the solution of their own problems.

Bases for the Federal Government's Concern About Evaluation and Accountability

The reasons why the federal government is (and should be) interested in and concerned about evaluation and accountability in vocational education stem from the justification Congress has for providing special federal support for vocational education. The need to substantiate this justification leads to the kinds of questions Congress must ask and the judgments it must make (fairly regularly) about vocational education. The nature of the evaluation/accountability process and the character of vocational education determine how and by whom Congress' questions should be answered, and thus provide guidelines for formulating effective legislation about evaluation/accountability. The subsections which follow speak to each of these considerations.

Reasons for Federal Support of Vocational Education

1. Protect individual rights to equal educational opportunity.

The protection of equal education opportunity (as distinguished from a guarantee for equal results) is a constitutional obligation of the federal government.

2. Stimulate improvements in, and help build the capacities of, state and local vocational education delivery mechanisms to prepare clients for work.

Even if there were no immediate, urgent, relevant national problems, the role of vocational education as preparation for work is probably so fundamental to the continued health of the national economy that it deserves federal support. Federal aid should therefore be utilized to enhance the quality and efficiency with which vocational education delivery mechanisms attain this fundamental outcome. Assistance should be provided in a manner that is sensitive to the diversity, decentralization, and complexity of the existing delivery mechanisms.

3. Supplement state and local efforts in order to help alleviate high priority national social and economic problems.

It is reasonable to expect that the aggregated outcomes of vocational education will help solve certain important national problems related to the work context. Supplementary federal aid should increase the anticipated impact. If, however, the national problems selected for attention are perceived by state and local communities as being in conflict with their own problems, then the desired federal impact will probably not be achieved. By specifying national problems and desired impacts acceptable to states and local

communities (and by having their alleviation/achievement assessed) the federal government helps to provide a framework for overall planning in vocational education.

Congressional Questions That Direct Evaluations

While there is adequate justification for federal aid to vocational education, there are certain questions Congress must pose each time it considers a specific appropriation for, or a particular piece of legislation about, vocational education. The answers to these questions lead to judgments about the nature and extent of the appropriate federal investment.

1. What is the (relative) value of vocational education to the nation?

Two pertinent subsets of questions appear to be: (a) What is the impact of federal assistance upon providing equal access to vocational programs? If the impact needs to be strengthened, how can it be accomplished most efficiently? (b) What are the impacts of federal assistance to vocational education upon the alleviation of (prespecified) high priority socio-economic problems? How do the impacts compare with the results of equal investments in other kinds of programs? How can the impacts of vocational education be strengthened most efficiently?

2. To what extent have states and local communities improved their capacity to prepare clients for work?

Congress might well ask: (a) What are the most desirable, feasible vocational education outcomes (for individuals)? If these are not now accepted, how should change/adaptation/adoption be accomplished? (b) What practices in the delivery mechanisms have been shown to facilitate the attainment of desired outcomes? What incentives should be provided to stimulate their discovery, development, and adoption?

3. Have states and local communities used the resources given to them in accordance with the law? If not, why not?

This is an "accountability" question. It is reasonable to expect that states and local communities will have conducted programs in conformance with the law.

Guidelines for Effective Federal Legislations

Federal legislation dealing with evaluation and accountability in vocational education should provide the means by which Congress can secure answers to questions like those posed above. When translating the questions into legislative requirements there are certain guidelines (drawn from the nature of the evaluation/accountability process and the characteristics of vocational education) which should be kept in mind in order to best satisfy Congressional purposes. Here are five such guidelines:

1. States and local communities have as deep and abiding interest in, and concern for, the success of vocational education as does the federal

government. Their investment is also many times greater.

2. The importance of evaluation is already recognized by states and local communities.

As Henry David stated in his testimony (1980) to the Congress on the NIE evaluation study, "States have demonstrated a genuine commitment to and serious investment in evaluation, although they vary greatly in the scope and intensity of their efforts...." Since evaluation is already widely recognized as a useful means for improving vocational education delivery mechanisms, Congress should continue to stimulate state and local evaluation activities and help them build the capacity for it.

3. Law and regulations should be careful not to overprescribe either the ends or the means of evaluation.

Because of the diversity, decentralization, and complexity of vocational delivery mechanisms, no one set of outcomes, no one way of evaluating, is suitable for all situations. Rather, the ability to adapt evaluations to each circumstance is essential to their utility. Furthermore, the evidence suggests that while prescription may insure compliance with the letter of the law, its spirit is too frequently ignored; evaluations may be conducted, but unless they serve state and local as well as federal purposes their results will not be utilized.

4. The achievement of desired educational outcomes cannot be accomplished by federal policy intervention alone, but only by continuing efforts at the state and local levels where programs are actually operated to increase program efficiency and effectiveness.

It is probably desirable to employ federal legislation to help overcome inequalities in education opportunity and to insist upon accountability for resources expended and for the manner of conducting certain aspects of programs, but problems of educational productivity -- the achievement of desired (qualitative) educational outcomes -- cannot yet be solved by federal policy intervention.

> "No science or technology of education (in the foreseeable future) can form a firm basis for policy intended to improve (educational) productivity. There are as yet only crude devices which can be incorporated into policy. These devices purport to be productivity-improving, but most have yet to demonstrate their worth. Consequently, control over the operation of schools should revert to local officials; efforts to improve educational productivity can and should continue at the institutional level" (Wise, 1979, p. 207).

At this very early stage in the development of a science of education it is highly desirable to encourage the creative initiative of state and local personnel. To do otherwise would make unrealistic demands upon current scientific knowledge about the education production function.

5. *Evaluations should meet standards of accuracy, utility, propriety, and feasibility.*

Every evaluation should meet standards of (a) accuracy (technically adequate information), (b) utility (serves the practical information needs of given audiences), (c) propriety (conducted legally, ethically and with due regard for the welfare of those involved), and feasibility (realistic, prudent, diplomatic, frugal, and cost-effective) (Joint Committee on Standards for Education Evaluation, 1981).

Evaluation and Accountability Recommendations for Vocational Education Legislation

Given the foregoing rationale -- definitions of evaluation and accountability, a description of certain salient features of vocational education, and the bases for the federal government's concern -- the following are five recommendations for vocational education legislation dealing with evaluation and accountability.

1. *Legislation should require and provide the necessary funds to the Assistant Secretary for Vocational and Adult Education for the conduct of ad hoc evaluation studies of vocational education.*

The intent is that these evaluation studies accomplish such national purposes as describing the systems, identifying more desirable outcomes,[4] improving the evaluation process, assessing the impact of federal assistance upon equal access and upon the alleviation of high priority national socio-economic problems, determining the relationships between impact and outcomes and how impacts can be strengthened, etc. Such studies might be conducted by the Department of Education (in-house), or by other agencies on contract or grant at the discretion of the Assistant Secretary.

2. *Legislation should require states and local communities to cooperate with the Department of Education in its conduct of audits designed to determine whether the requirements of the law have been met.*

Audits are probably necessary to protect Congressional credibility, but since they contribute little to the vitality or improvement of vocational programs, they should be conducted as expeditiously as possible. Therefore, the Department should audit some portion of the states annually. The audits should consist first of checking some key indicators of conformance; if the spot checks reveal the likelihood of prevalent or persistent nonconformance, complete audits could then be undertaken.

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[4] Determining the desired outcomes might also be considered a part of the planning process.

3. Legislation should require states to provide annual Accountability Reports to the Assistant Secretary for Vocational and Adult Education (covering inputs, resources, process, and quantity of product).

Annual Accountability Reports constitute self-monitoring devices which reflect progress in fulfilling the intentions expressed in State Plans for input, resource, process, and quantity of output. Such comparisons between intent and actuality should result in decisions by states to adjust annual plans and/or practices; these decisions should be reported in the Accountability Report. Careful analyses of Accountability Reports will provide annual descriptions (primarily quantitative) of the aggregated national practice of vocational education.

4. Legislation should provide for financial and technical assistance to states and local communities for conducting evaluations designed to improve (a) the results of the planning process, and (b) the efficiency and effectiveness of their delivery mechanisms.

These evaluation efforts are aimed at improving the quality of vocational programs. They should consist, first, of systems of "process" evaluation which examine the ways programs are planned and operated and attempt to assure that reasonable, relevant planning and educational practices are being utilized. Evaluation efforts should also consist of studies which focus upon the difficult task of determining the relationships among outcomes, process, and inputs so that the state of our knowledge about efficient and effective practices (in the classroom, in support services, in institutional structures and governance arrangements, and in intersystem relationships) can be perfected. States and local communities would be expected to incorporate the relevant judgments that result from these evaluative efforts into their long range plans, as well as the adjustments made annually in those plans (Accountability Reports). Funding for these evaluation activities and studies can be provided either through a set-aside established for the purpose, or states could be permitted to use whatever portion of their basic grant needed. (The funding arrangements chosen should be consistent with the funding principles utilized in the legislation as a whole.)

Summary

In summary, future legislation should provide, first, for the conduct of ad hoc evaluation studies which describe the nationwide vocational education effort, which help establish desired outcomes and impacts that are mutually acceptable to Congress and to the states, and which begin to assess the relationships among and the extent to which desired outcomes and impacts are being attained. This information should facilitate the formation of Congressional policies that depend upon judgments about the (relative) value of vocational education as a means for providing employment-related education and training.

Future vocational legislation should also stimulate continued evaluation efforts within states to enhance the quality of their vocational programs. Because of the wide diversity among vocational programs, such legislation should

not be prescriptive with regards to specific evaluative ends or means, but instead should encourage (a) the further development of systematic means for assuring that reasonable, relevant planning and educational practices are being employed in generating programs ("process" evaluations), and (b) the conduct of studies that will begin to establish the relationships among inputs, process and outcomes of vocational programs.

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INQUIRY AS A MEANS OF REFORM AND RENEWAL IN VOCATIONAL EDUCATION

Jerome Moss, Jr.[1]

The Need for Reform and Renewal

Background

It is useful to think about vocational education as an enterprise designed and operated to satisfy a part of society's need for employment-related education and training. Clients enter vocational education programs with certain work-related characteristics and leave with characteristics which are more useful--both to them and to society. When clients subsequently enter or re-enter the work force, their aggregated effect should be to alleviate certain social and economic problems.

Vocational education in this country is administered through the public school system. In recent years, however, it has become obvious that vocational education programs need to be better coordinated with the other systems, public and private, including apprenticeship, military training, business and industry operated programs, and manpower programs, that are also providing employment-related education and training. Improved coordination should enhance their combined impact upon such state and national priorities as increasing worker productivity, reducing structural unemployment and underemployment, and providing equality of educational opportunity.

It is also apparent that the amount and the kinds of society's needs for education for work will change rapidly during the next several decades. Natural resources depletion, coupled with new demographic patterns, technological advancements, and emerging political realities will greatly alter the systems for producing and distributing goods and services. And these changes will, in turn, present unprecedented challenges to and opportunities for providing employment-related education and training.

Reform and Renewal

To remain viable in such a complex, dynamic societal context, vocational education's purposes, characteristics, and relationships with similar enterprises must be examined continuously. Vocational education, in other words, must be sensitized to the potential need for reform--for making basic changes in its ends and means--to help insure that it continues to play a relevant, effective

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societal role. At the same time, to play any prescribed role efficiently, the vocational education enterprise needs constant revitalization and servicing--it needs renewal, with continual infusions of new knowledge, better processes, and more up-to-date products to improve the cost-effectiveness of the existing system.

On the one hand, reform has, as its philosophic purpose, the formulation of ideas about what "ought to be." For accomplishing this end, the perspective of reform must be long-range, macro-level and system-wide; its strategy is to influence educational design, legislation, and policy. On the other hand, the most immediate purpose of renewal is to improve the program within the boundaries of existing legislation and policy; it takes a shorter-range, more micro-level, operational perspective of program improvement. Taken together, reform and renewal insure the relevance of the vocational education enterprise to society as a whole, and improve the quality of its products.

Inquiry As A Means for Reform and Renewal

The essential purposes of reform and renewal in vocational education can best be accomplished by the activities of (a) inquiry, (b) planning, (c) evaluation, and (d) personnel (including leadership) development. The focus of this paper will be solely on inquiry.

The term "inquiry" is used here to mean those kinds of planned activities which generate, test, and disseminate new ideas, knowledge and products that will improve the ability of vocational education to respond to society's needs. The term encompasses what is usually called research and policy studies, development (including curriculum development), demonstration, and dissemination.

With the ideas generated and disseminated through inquiry (e.g. through policy studies for example) the profession can be alerted to the need for reform and stimulated to debate the alternatives proposed. Also, through inquiry new knowledge about the occupational structure can be discovered, better methods of teaching can be created, and more effective curriculums can be developed--all designed to renew existing programs. There simply is no other set of activities that can better assure continuous reform and renewal than inquiry. The alternative to an active program of inquiry is stagnation and obsolescence.

The Basis of Federal Support for Inquiry

Given its role in reform and renewal, there are several reasons why the federal government should help to support inquiry in vocational education.

Aid is needed to assure that some efforts are directed at resolving high priority national problems and dysfunctions. States do not have sufficient reason, for example, to identify and establish desirable nationwide objectives and impacts for vocational education nor to make comparisons among different federally-sponsored employment-related education and training systems. These

are among the problems that transcend the needs and the resources of any single state.

Further, supporting inquiry is a form of insurance for the federal government; it increases the probability that the much larger investment in program operation by local, state and federal governments will have maximum payoff. In the long run, scientific and intellectual capital is needed for planning and operating the vocational education enterprise; policy-makers now run too quickly through the accumulated knowledge into areas of fundamental ignorance. Verified knowledge is needed to replace good intentions, hunches, and limited personal experience.

In these days of rapidly rising costs and pressures to hold down expenditures, federal aid is needed to encourage states to accept responsibility for making qualitative improvements in programs. The aid will provide a stimulus for renewal activities at the state and local levels where operational improvements can best be introduced, adapted and regularized. A positive attitude toward continual program change can be engendered most effectively through close association with the processes of inquiry. Thus, by stimulating inquiry, the means for renewal, the federal government can exercise a significant form of persuasive leadership.

Finally, aid is needed to help build the capacities of state and local agencies for inquiry. Just as the capacity for delivering vocational programs needs to be built, so does the capacity for conducting inquiry need to be developed. Reform and renewal are dependent upon the capacity to produce valid, reliable and relevant knowledge and products. Unfortunately, the capacity in the field to conduct inquiry has been severely limited by past federal policies leading to relatively small, erratic investments in inquiry. Fortunately, with appropriate management strategies, the process of capacity building can be linked with the conduct of inquiry so that both are accomplished simultaneously.

Some Guidelines for Federal Investments in Inquiry

1. *All inquiry in vocational education should be directed to the improvement of practice. It should, however, conform to high qualitative standards and be as programmatic as possible.*

   (a) Vocational education is a field of practice (rather than a discipline) created to respond to particular individual and societal needs. Inquiry should be deliberately directed to the improvement of that practice--that's what make it "applied."

   (b) No matter how relevant, inquiry which does not meet scientific criteria for quality should not be supported. Inaccurate information, misleading knowledge, and ineffective products can result in greater damage and cost than acting in their absence. (It is this need for rigorous qualitative standards that makes it essential to develop the capacity of the field for inquiry.)

(c) States and local agencies can typically be counted on to engage in inquiry that they see as relevant, especially if they are participating in the cost of the project. Under these circumstances, it is not realistic to place an arbitrary time limit on how long it should take the results of any (relevant) inquiry project to effect operating programs. Real, significant, and continuing problems are complex; their elements often need to be attacked sequentially. Solving such problems inevitably involves risk and uncertainties which require a degree of flexibility in the conduct of inquiry.

(d) Programmatic inquiry requires less start up time and builds institutional capacity for the continuing refinement and implementation of new ideas. Typically, the nature of the problem should determine the length of a project/program. Programs of inquiry with at least five year duration should certainly be permitted.

(e) There should be no arbitrary management distinction made between research, development, demonstration, dissemination, etc. Each should be considered a stage in the total process of generating, testing and utilizing new ideas, information and/or products to improve the vocational education enterprise. Each stage may be important at a given time and situation.

2. *Inquiry which has renewal as its immediate purpose is best managed by the operators of state systems.*

(a) Immediate needs within states are best known by those working in them. They are responsible for the consequences of the enterprise, and are in the best position to employ the results of inquiry.

(b) The closer to the bureaucracy that inquiry occurs, the more likely it will be focused on "fine-tuning" the existing system (e.g. increasing the efficiency of what exists, keeping it current). By contrast, the bureaucracy of a system rarely invites its own basic reform.

(c) Inquiry can and should be coordinated with more comprehensive planning for the total vocational enterprise in each state (thereby better serving the ongoing system and facilitating the utilization of the results of inquiry).

(d) Since some renewal activities may serve the common interests and needs of all states (or groups of states), a mechanism should be created (e.g. a national center) which will facilitate the conduct of that inquiry. The mechanism (center(s)) should be considered an extended arm of the operating programs of vocational education (rather than an extended arm of the federal bureaucracy). Its facilitation should take such forms as arranging for technical assistance, convening state groups, disseminating results, and carrying out selected programs of inquiry that are common to the states.

3. *Inquiry which has reform as its purpose is best managed by those who are not directly a part of each state's operating program.*

(a) It is important to build the capacity for vocational education to reach "outside of itself" in order that the enterprise as a whole may be studied in relation to other employment-related education and training system.

(b) Such inquiry should be managed by those who are (i) at least semi-independent from the managers of the present systems, (ii) able to capture and bring to bear expertise from many different disciplines and fields of practice, (iii) concerned about all the employment-related education and training systems, and (iv) utilize scholarly expertise in the field to generate and judge the inquiry effort.

(c) Those who conduct the inquiry should (i) be knowledgeable about all of society's systems for employment-related education and training, (ii) have at hand as wide a range of intellectual resources as possible, and (iii) be employed by agencies at which inquiry is highly valued.

(d) At the same time, to facilitate the development of capacity for inquiry about vocational education, to maximize its efficiency, and to increase the likelihood of useful outcomes, the inquiry can best be done by those individuals in institutions which (i) have a continuing commitment to employment-related education and training (cost sharing and stability), (ii) some credibility within vocational education, and (iii) the ability to combine inquiry activities with the development of leadership personnel.

4. *The federal investment should maximize existing creativity in the field.*

(a) Provisions should be made to encourage field-initiated projects and programs. Once research questions are structured, as in RFP's, they limit the range of possible solutions. Further, insistence upon specific procedures or outcomes tends to discourage an intellectual climate which might produce important ideas and innovative products. Vocational education must not be entirely dependent, therefore, upon the bureaucracy to select the questions to be studied or to prescribe the methods of inquiry.

(b) Similarly, grants as well as contracts should be permitted so that researchers in the field can initiate some high risk, high payoff activities.

(c) A major consideration in evaluating inquiry proposals should be the extent to which the project will assist in long-term capacity building.

(d) Not all of the knowledge needed for vocational education can come from inquiry on vocational education. The results of inquiry in all

disciplines, e.g. anthropology, economics, philosophy, psychology, etc., and in other fields of practice, such as law, management, engineering, must be used as well. Inquiry should be done in an environment that facilitates access to this other knowledge.

5. *At least 25 percent of the total federal appropriation for vocational education should be allocated for inquiry.*

   (a) Leaders of business and industry advocate that 10 percent of total costs should be allotted to inquiry (i.e. research and development). At the current proportion of federal to state and local expenditures for vocational education (one to ten), that would mean most (if not all) of the federal appropriation should be used for inquiry. However, in light of our present lack of capability to properly utilize that many dollars with high quality results, and the desirability of having state and local agencies participate in the effort, it is more realistic to advocate that at least 25 percent of the federal appropriation be allocated for inquiry.

   (b) In order to extend the inquiry effort, help insure its relevance, and facilitate capacity building, the federal funds used to stimulate inquiry about state and local problems should be matched by a state and/or local contribution of at least 25 percent of the total cost. Inquiry activities undertaken for nationwide purposes should be matched by at least 10 percent of the cost.

6. *The federal government should maintain a "mixed portfolio" of inquiry investments.*

   (a) Of the 25 percent allocated for inquiry, no more than $15 million should be devoted to the purpose of long-range reform. The remainder should be spent for inquiry that focuses on more immediate improvements in the efficiency of operating programs (renewal).

   (b) As a field of study, vocational education has complex, practical problems which the methods of inquiry from any one discipline cannot fully illuminate. The tools of inquiry from many disciplines are often relevant, and should be utilized in order to enrich vocational educators' perspectives of, and solutions to, their problems.

   (c) The portfolio should also contain both high risk and low risk projects and programs, with private as well as public sources of inquiry utilized, in order to secure an appropriate balance of federal investments in inquiry.

Legislative Recommendations

Given the foregoing rationale for inquiry as a tool of reform and renewal, and the suggested guidelines for managing investments in inquiry, it is possible to state some language for incorporation into federal vocational legislation that would serve to operationalize the rationale and guidelines.

I. Authorization

At least 25 percent of the total federal appropriation for vocational education should be allocated to inquiry activities for the purposes of reform and renewal in vocational education. Inquiry is defined as those kinds of planned activities which generate, test, and disseminate new ideas, knowledge and products.

II. Inquiry for Reform

A. General

1. Inquiry for reform is needed to examine the goals and system-wide characteristics of vocational education and its relationship to other employment-related education and training systems for the purpose of assuring the continued relevance and effectiveness of the vocational education enterprise in a changing societal context.

2. Up to $15 million of the amount appropriated annually for inquiry in vocational education might be directed toward possible reform. Decisions about funding should be made by a panel composed of such persons as a representative from (a) the President's domestic policy staff, (b) the panel of economic advisors, (c) the Department of Education, (d) the Department of Labor, and (e) the Department of Defense.

3. Inquiry for reform should be carried out through two mechanisms: (a) Project award program, and (b) "Institute" program.

B. Project Award Program

1. Competitive awards should tap the widest possible array of talents and approaches to the development of creative ideas and the solution of problems with nationwide significance. The development of a continuing capacity for inquiry in vocational education should be an important factor in making awards.

2. Multiple procurement modes should be utilized, such as RFP's and field initiated proposals, including a program of small grants. Both contract and grant awards should be possible.

3. A minimum of 10 percent should be required for matching purposes.

C. "Institute" Program

1. The creation of 10 to 15 independent "institutes" should be authorized, each for a period of up to five years. The purpose of "institutes" is to add a new extra-bureaucratic dimension to the field. They should build on existing institutional strengths, focus creativity and sustained effort on nationwide problems, establish linkages with and use the expertise in fields related to vocational education, and bring inquiry, leadership development, and vocational personnel development into a close, mutually supportive relationship.

2. The "institutes", to be administered through departments of vocational (teacher) education in colleges and universities, would engage in (a) leadership (doctoral-level) training in vocational education, and (b) programmatic applied study designed to examine the continuing relevance and effectiveness of the vocational education system as a whole and to address long-range nationwide problems.

3. Each "institute" would also be required to (a) establish working relationships with one or more other fields/disciplines relevant to the special problem focus of that "institute" (e.g. economics, sociology, public affairs, etc.), (b) demonstrate both commitment through cost sharing (at least 10 percent of the total cost) and how capacity for future inquiry and doctoral-level education will be developed as a result of the "institute", and (c) agree to utilize the National Center and other "institutes" as resouces and as collaborators where appropriate.

4. "Institutes" would be selected by the federal panel (utilizing the advice of knowledgeable professionals) from among those proposed by colleges and universities.

III. Inquiry for Renewal

A. General

1. Inquiry for renewal is needed to improve the quality and efficiency of state and local operational programs.

2. After the allocation to inquiry for reform has been deducted from the total appropriation for inquiry, the Secretary of Education should decide on the amount (up to a maximum of $5 million annually) to be allotted to a National Center for Research in Vocational Education and then distribute the remainder among the states and territories in the same proportion as each state's or territory's annual expenditures. Funds allocated to each state and spent for inquiry should be supplemented by at least a 25 percent state and/or local

contribution. Funds allotted to a National Center should be supplemented by a 10 percent contribution.

3. Inquiry for renewal should be carried out through two mechanisms: (a) a National Center for Research in Vocational Education, and (b) a state grant program.

B. State Grant Program

1. Funds for inquiry distributed to states and territories may be used to support projects, programs, centers, etc., including research coordinating units, curriculum development consortia, and instructional materials centers.

2. States will incorporate planning for inquiry into their general planning process for vocational education.

3. Multiple procurement modes may be utilized, including RFP's, field-initiated proposals, and sole-source contracts. Both contract and grant awards should be used.

C. National Center for Research in Vocational Education

1. A National Center, chosen by the Secretary of Education once every five years, should act as an extended arm of the states' efforts at program renewal. The activities of the National Center should be planned with the assistance of an advisory committee comprised mainly of State Directors of Vocational Education.

2. The specific purposes of the National Center include: (a) Facilitating the sharing of information among state-level inquiry units (e.g. curriculum centers, research coordinating units, etc.) and "institutes"; (b) assisting in dissemination by aggregating, evaluating, synthesizing and reporting the results of research and development, acting as ERIC Clearinghouse, and convening conferences and meetings; (c) acting as a "broker" in locating and helping to arrange for technical assistance to state and local education agencies in such matters as inquiry, evaluation and planning in vocational education; (d) conducting research and development projects and programs on problems common to states' operating programs.

LOCAL PLANNING IN FEDERAL VOCATIONAL LEGISLATION

George Copa[1]

Nature of Planning

Planning results in decisions about the future as contrast to evaluation which concerns judgments about previous action. However, planning and evaluation should be symbiotic functions, one using information from the other in a cyclic, integrative way. Planning is as much concerned with decisions about future goals or desired ends as about future ways and means.

There are several reasons for planning which serve to justify its costs. Planning forces communication of what is to be done and why before action is taken. Thereby, it can insure prior systematic analysis of alternatives and consequences by those who are providing resources, responsible for carrying out actions, and bearing the consequences of the actions. Planning serves to develop an offensive (or leadership) posture as opposed to a defensive posture with respect to program improvement. Planning forces anticipation of problems before they actually occur, which in turn, allows development of contingency actions. Planning provides a "best formulation" (plan) of what is being promised in exchange for resources as relates to accountability. In this way, planning and plans serve as benchmarks for evaluating and evaluations, respectively. Planning can serve to identify intermediate points in achieving an objective and so, serve as a way to do "mid-stream" corrections. Planning is also rewarding in the sense that it provides some relatively fixed goals, which if achieved, can be satisfying to those responsible for carrying out the plan. As an explicit statement of expectations, a plan provides a tangible document which can actually be revised to improve performance in the future.

As with other functions, if carried to the extreme, there can be severe disadvantages to planning. These can come in the form of lack of flexibility, non-responsiveness, missed opportunities, and autocratic management (as per plan). Worse yet, if the planning process is not appropriate, plans can result which bear little relationship to the wishes of the constituency for which the plans were made or to the administrative context within which plans must be implemented.

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Local Planning Decisions in Vocational Education

Just what are the decisions about the future--the planning decisions--made in vocational education? One classification scheme for educational decisions which seems particularly insightful on this point is that suggested by a group of educational evaluators chaired by Daniel Stufflebeam (1971) in a book entitled Educational Evaluation and Decision Making. The basic structure they suggested is shown in Figure 1.

	Intended	Actual
Ends	Planning (Context)	Recycling (Product)
Means	Structuring (Input)	Implementing (Process)

Source: From Stufflebeam, et. al. Educational Evaluation and Decision-Making, p. 80.

Figure 1. Types of Decisions in Vocational Education.

As can be seen, the structure has four categories of decisions developed by considering two characteristics or dimensions of a decision. The first dimension encompasses what is to be done (ends) and how it is to be done (means). The second dimension reflects a notion of time of the decision, that is, either before (intended) or after (actual) the decision is implemented. The labels for the cells are planning, structuring, implementing, and recycling. The information most relevant to these cells is classified as context (for planning), input (for structuring), process (for implementing) and product for (recycling).

The category of planning includes decisions about the future and usually involves examining the context or environment in which the program is to operate. Typical planning decisions might be: What are the goals of the vocational education program? For which occupation is this program designed to prepare students? Should the program focus on a cluster of transferable skills and knowledge or on preparation for a specific occupation? What should be the benefits of the program beyond placement in a related occupation? Should the program focus on basic education, social adjustment or income maintenance? Which programs should be added or phased out next year? Should a career guidance or drug education component be added to the program?

The category of structuring deals with decisions about how to achieve planned goals. It includes such questions as: Which teacher should be hired? What facilities should be made available for the program? What equipment should be ordered? How should potential students be made aware of the program? Is student selection necessary, and, if so how should it be done? How much of the budget should be allocated to each program area?

The category of implementing includes decisions about how best to combine and change the elements described under structuring while the program is operating. Some typical decisions in this category are: Is the curriculum working or are modifications necessary? Does the teacher need assistance? Do some of the students need special services to successfully complete the program? Is there enough equipment of the right kind? Are the parents being appropriately brought into the learning process? Is there an attendance or discipline problem, and, if so, how should it be handled?

The fourth category, recycling, refers to decisions about the accomplishments of actual ends in contrast to intended ends. The purpose of recycling decisions (traditionally referred to as evaluation decisions) is to decide if the program should be continued as is, revised, or phased out. Decisions in this category include: Did the students learn enough? Was the placement in related occupations sufficient? Did students with special needs find their way into the program and complete it successfully? Should the program be continued as is?

The four cells of the structure are intended to group decisions which have common or similar information requirements. They are related to each other to the extent that means follow from ends and actual follows from intended. As noted earlier, planning decisions should be concerned with both future ends and means; therefore, they would typically encompass the planning and structuring decisions referred to above.

Context for Local Planning in Vocational Education

Vocational education is a service industry--its principal input and output are people. In the process of vocational education, these people (students) hopefully become better prepared to perform a work role as a part of their lives. Operating on the supply side of the market for labor, vocational education has little direct control over demand except in how it wishes to respond to demand. (This latter means of effecting the labor market through vocational education has largely not been exploited.) Vocational education also goes through great effort not to control the quality of clients (inputs) it services. Rather, it must "make do" with those who come for service and hope for the best when they leave.

The technology of vocational education lies in its instructional process--the curriculum, teaching methods, facilities, equipment and organization. Knowledge of "tight" cause and effect relationships is rudimentary. While there is consensus on its purpose of preparing people for work, there is much less consensus on such concepts as work, what it means to be prepared for work, and the best way to go about doing the preparation.

The National Institute of Education (1981) has characterized vocational education across the country as being diverse and decentralized. Diverse in the sense of large differences in purpose, organization and implementation between states and between schools within states. Decentralized in that many of the decisions on how and what is delivered as vocational education are made by thousands of local school districts. Vocational education seems to fit the observation made by Schmidlein (1982) that educational governance is better characterized by a system of "checks and balances" rather than a top down bureaucratic structure. Each level, federal, state, and local, has its area of decision making but none are in control unilaterally. Power is diffused, multilevel bargaining and compromise are necessary to take action, and stability is promoted through multiple review policies.

The decentralization in decision making results in locating the decision maker close to the context of the decisions. In this environment, informal information obtained through the mail, telephone calls, scheduled and unscheduled meetings and direct observation become very important. This information is timely and rich in detail. Today's gossip--that a new firm is moving into the area, that a student is considering dropping out--may be tomorrow's fact. And each of these facts has important implications for improving vocational education. Here, the decision maker may feel that an elaborate process is not needed to make a decision--rather a well placed phone call or walk down the hall can be much more effective. Informal communications, knowledge of organization, and experience with the system being managed are often of high priority as administrative skills.

Mission and Performance Requirements for Vocational Education

As with doing evaluation, it is difficult to do planning without at least some sense of the mission and performance requirements of the entity being planned. Now the "working out" of this mission and its attendant requirements can be the function of planning. A common erroneous assumption is that planning is to be largely concerned with deciding how to do something once it has been decided what that something is. This latter assumption has lead to a rather technical role for planning.

In the first paper of this publication (about evaluation), the authors proposed the beginnings of a mission and set of performance requirements for vocational education which elaborates beyond the simple purpose of "preparing people for work." A statement of this kind, agreed upon by those providing resources and responsibility (taxpayers and citizens), those practicing vocational education, and those bearing its consequences, would be an essential first step in the planning process. (This statement would subsequently also form the base for evaluation of vocational education.) Logically, it seems necessary that an explicit and shared statement of this kind describing acceptable ends for vocational education would need to be worked out before attention is turned to selecting acceptable means to accomplish vocational education. A major issue to be addressed by federal vocational legislation is the role of the federal, state, and local government in making these planning decisions.

Time Horizons and Factors to Consider in Planning

Vocational Education

This section of the paper will deal more specifically with the planning process in vocational education and the factors typically taken into account. Planning is often sub-divided in terms of the length of time into the future (time horizon) which is under consideration--very long run, long run and short run. These time horizons can also be thought of as responses to a series of questions: (a) what could be done (very long run), (b) what should be done (long run) and (c) what would (or will) be done (short run)?

Very Long Run Planning

Very long run planning or responses to the question of "could be" deals with those alternatives which are theoretically possible under legal constraints and cultural values. For example, vocational education could have education programs for commercial airplane pilots or rock musicians. In deciding what could be done, reference is made to legal constraints (e.g., no program for occupations requiring a baccalaureate degree for entry) and existing cultural values (e.g., no program for thiefs). Decisions in the context of what "could be" are important in ascertaining the full scope of things which could be done. They identify growing and receding points for vocational education. As has been demonstrated in the past, the "could be" changes with changes in legislation (e.g., distributive and business and office occupations which were added long after agriculture and home economics) and existing cultural values (e.g., energy technician has recently become a viable occupation, females accepted and sought after in traditionally male occupation). The difference between what "could be" and "what 'is'" forms the basis for a "very long run" plan.

Long Run Planning

Decisions made in the "should" context refer to what is theoretically best in the long run. Decisions are not constrained by present resources (e.g., annual budget, physical plant, staff) since these resources can be changed in the long run. Rather, the emphasis is on determining the amount of mutual satisfaction (for individual and society) which can be generated by various alternative program offerings and the effectiveness and efficiency of other sources of education for selected occupations (e.g., private schools, on-the-job, apprenticeship).

In making "should be" decisions, the expected contribution to the mutual satisfaction of individual and society of providing preparation for a particular occupation must first be ascertained. An approximation to a more theoretical process of assessing potential satisfaction associated with training for various occupations is to handle the matter in two steps. First, one should raise the question of potential contribution to individual satisfaction. This might be done by determining if there is a fairly stable interest among individuals for training for each occupation. Determination could be done in a wide variety of ways (e.g., interest surveys, results of formal interest assessments, examining

number of student program applications). The concern here is to establish that there will be a future interest in training for the occupation. The assumption is that if there is interest, there is also the aptitude to perform the occupation and there will be satisfaction with being prepared for the occupation.

The second step in determining potential for satisfaction is to focus on the needs of society. The question to be raised here concerns the future occupational demand for each occupation. Answers to this question can again be obtained through a variety of means (e.g., analysis of labor market projections, review of past trends in the placement of those leaving training programs). The assumption made is that if there is occupational demand, society will derive satisfaction from having the demand filled. It may also be possible to get some sense of the relative amount of satisfaction society would derive among occupations by examining indicators such as the wages or salary (or income saving) which accompanies the demand schedules.

The other criteria mentioned in reference to the "should" question is the effectiveness and efficiency of alternative sources of education for a selected occupation. The variables of importance are: (a) Are there other sources of education available for the occupation, (b) are the sources effective in the education provided, (c) are the sources accessible in terms of location, time, cost, allowance for special needs (e.g., handicapped, disadvantaged), (d) do the sources prepare enough individuals, and (d) are they more efficient (i.e., cost less to individual and society) given an affirmative answer to the previous four questions.

Other sources of education for a particular occupation might be so-called "general" or "academic" education or alternative forms of vocational education, such as private vocational schools, apprenticeship programs, on-the-job training sponsored by industry, training programs sponsored under the Comprehensive Employment and Training Act (CETA) and other sources which represent alternatives to vocational education sponsored through public schools. The division of alternative sources is not always "neat" since many programs may be done cooperatively (e.g., high school vocational education courses are taken along with more "general" education courses, apprenticeship classroom training is often done in public sponsored vocational education programs). If there are no alternative training sources to vocational education, society might well ask the question--should there be alternative competing sources as opposed to a monopoly by public vocational education programs for the best interests of individuals and society.

The effectiveness of alternative sources refers to their ability to gain for the individual they serve and society the maximum mutual satisfaction possible in the work world. Given that the purpose of the program is to give specialized training for a first job, effectiveness means that after completing the program, an individual has the ability to perform in the selected occupation at a level acceptable for occupational entry. Effectiveness can be stated in terms of the competencies which the program develops and the level of performance in the competencies guaranteed to its clients. Additional indexes of effectiveness may be the percent of individuals completing a program who are first able to get an occupation of the kind for which education was

provided and the degree of satisfaction of the individual with the occupation and the satisfactoriness of the employers with the performance of the individual. A further removed indicator of effectiveness may be the ability of the individual to advance or be promoted in the selected occupational area.

The accessibility of alternative sources of education refers to the degree to which they are "open" or can be "taken advantage of" by all individuals irrespective of age, sex, geographic location, race, economic status, physical condition, family status, and timing of availability (e.g., some individual may be able to participate in training only during the weekends or evenings). Accessibility is closely tied to the provision for equal educational opportunity.

The volume of individuals served is another dimension of the question concerning the viable alternative sources of education for a given occupation. Volume refers to the number of individuals served relative to occupational demand by society.

The dimension of efficiency is applied last. If there are alternative sources of training for an occupation and they are effective, accessible, and have sufficient capacity, then the question of cost (to society and individual) can be raised in deciding if vocational education should provide training. If there are alternative sources, but they are not effective or not accessible or not of sufficient capacity, then vocational education may decide if it should provide training without even asking the cost question. In calculating cost, both the cost to individual and society must be assessed and added together to provide an estimate of total cost per individual with a given level of competence and specified competencies relative to a selected occupation.

Making decisions concerning planning vocational education in the "should" context, therefore, involves questions of contribution to mutual satisfaction of individual and society and viability of alternative sources of education. Each of these questions can be subdivided into several more specific questions. The difference between "should" and "is" represents the basis for a long range plan.

Short Run Planning

Decision in the "would" or "will be" context refer to what can be done in the short run given the consideration of previously stated concerns plus existing resource limitations, potentially interested students and prevailing cultural values. Decisions are constrained by resources (e.g., teachers under contract, facilities, curriculum), number and type of students enrolled or willing to enroll and existing community values (e.g., political, societal). Decisions become very realistic at this point, reflecting things that will be done tomorrow. Decisions are complicated by the many factors which now must be considered--not only the factors going into the very long run and long run plan, but the additional factors cited above. The most important concerns become:

1. Facilities (e.g., shop equipment, laboratories, training stations, capacity, utilization),

2. Teachers (e.g., tenure, salaries, experience),

3. Students (e.g., number interested, enrollments, attendance, completion ages),

4. Jobs (e.g., vacancies, pay, cooperative placements stations, previous graduate placement rates),

5. Political environment (e.g., taxpayer, parent, teacher, student), and

6. Budgets (e.g., effectiveness, availability, flexibility).

These are the variables which become relevant to the short run plan.

Implication for Local Planning Recommendations in Federal Vocational Legislation

This section will be used to draw implications from the previous parts of the paper for making recommendations concerning the treatment of local planning in federal vocational education legislation.

1. Planning should concern itself with both the ends and means for vocational education at all levels of government.

In the past, it seems that the ends to be served by vocational education have presumed to be adequately dealt with by federal vocational legislation or carried on from the past, either or both being accepted without critical reflection or extensive elaboration. The role of planning is sometimes thought of as one of "working-out" the best means for accomplishing these largely unquestioned ends at the state and local level. However, planning can be much more powerful if it also results in decisions about ends. There is likely to be greater acceptance of the benefits of planning for means once the response to the question of ends is agreed upon in an appropriate manner.

2. Planning can bring both benefits or losses depending upon the way the planning process is carried out.

The benefits of planning are manifest in improved communication and consensus before action, a leadership posture with respect to program improvement, and an explicit statement of what is promised in exchange for resources and responsiblility. However, planning can also bring lack of flexibility, non-responsiveness, compliance management, and mounds of paper. The difference is largely in the importance of the question addressed (noted in the previous implication) and in the process used to plan.

3. The planning process must be allowed to be tailored to the context in which it is to be done and the questions to be addressed.

Vocational education is a very decentralized, diverse and complex delivery system for education for work. Many agencies and individuals of diverse backgrounds and interest are involved in its funding and decision making process. One pattern for the planning process will certainly not best serve all

of these situations or the diversity of questions to be addressed. What is important is that there be opportunity and responsibility for appropriate involvement in the planning process by at least the following groups: (a) those responsible for delivering vocational education, (b) those responsible for providing resources to pay the costs of vocational education and (c) those who bear the consequences of vocational education. In each case, what is "appropriate" involvement needs to be "worked out" given the context of what it means to live in a democracy. What is "worked out" will form the standards for the planning process; these should be characterized in such terms as access to information, opportunity to be heard, explanation of bases for decisions, effectiveness, cost, and process for appeal.

Given the resources and effort put into vocational education at the local (and state) level, it is reasonable to assume they are at least as concerned about the success of vocational education as is the federal government. They have always planned in one form or another and to varying degrees--it is doubted that they value planning any less than the federal government. Further, the achievement of desired vocational outcomes cannot be accomplished by the federal government alone. Vocational education (where teacher and student actually come together) is only done at the local level. For this reason, much of its achievement will be decided there too.

4. Planning of vocational education is a relatively "soft" business since there is not widespread agreement on the specific purpose of vocational education nor on the best way to go about it.

As already noted, while there may be general agreement that vocational education's major purpose is to prepare people for work, the further elaboration of purpose is piecemeal and of considerable divergence. Also, the knowledge of cause and effect, even given there was agreement on what effects are to be accomplished, is at a rudimentary stage. Given this state of knowledge and consensus, it again seems inappropriate for any level of government to be overly prescriptive of either the ends or means of planning.

5. There are some important factors which seem commonly accepted as relevant to planning vocational education; some of these, particularly those concerning the short run, are of special relevance to local planning.

First, it is important to note that all of the factors mentioned previously are important at each level of government--federal, state, and local. However, the factors which relate specifically to short run planning (e.g., facilities, teachers, students, jobs, political environment, budgets, and curriculum) seem, from a logical, information access and efficiency perspective, to be primarily the domain of the local level. This does not mean that local planners should ignore the factors noted in connection with the long and very long run decisions--only that the local level has, in addition, to address the short run factors most specifically. Both the state and federal level would seem logically to concern themselves most in their effect on planning with very long run factors (e.g., legal constraints and cultural values)

and long run factors (e.g., satisfaction of individual, satisfaction of society, and alternative sources of education for work). It is here that the federal government can make known what it considers to be the parameters of vocational education (e.g., types of occupations to be adddressed), the cultural values to be especially enforced (e.g., equal education opportunity), and the social and economic problems on which vocational education is expected to have impact (e.g., national defense capability, productivity, unemployment). The state level involvement in planning would need to be explicit about how it will address federal level concerns but, in turn, could add its own unique parameters, values, and socio-economic problems of concern (as could also the local level). It seems the state level might appropriately have most effect on the long run planning factors concerning how best to address the individual and societal needs (e.g., student interests, occupational demand, respectively) of the state, as well as consideration of alternative sources of education for work available in the state.

Recommendations for Local Planning

in Federal Vocational Legislation

Given the above implications, federal vocational legislation should impact on local planning in the following ways:

1. It should encourage planning at the local level as a way to improve vocational education.

2. The federal legislation should encourage attention in local planning to federal goals for vocational education (i.e., equal educational opportunity, productivity). These goals may be the same as state and local goals or they could be different, at least of different priority. Federal goals for vocational education should become one of the important decision factors (along with occupational demand, student interest, availability of teachers, facilities and curriculum) considered by all local educational agencies in deciding what they will do and how it will be done.

3. The linkage of evaluation to planning should be encouraged by the legislation. Results of evaluation should feed forward into the planning process in cyclic fashion; so too, the results of planning should feed into evaluation if the two processes are to be mutually supportive.

4. The federal legislation should encourage planning which results in explicit plans and which involves (a) those who are responsible for providing resources (i.e., taxpayers, CETA prime sponsors, local community leaders), (b) those responsible for carrying out the plan (i.e., teachers, counselors, administrators), (c) <u>most importantly</u>, those who bear the consequences of the planning (i.e., parents, students, employers).

5. Local planning should address the full set of vocational education activities at the local level, but particularly stress new improvements which are to be made. This provision would serve to make the planning address the full

program (as a means of revitalization) but highlight real changes that are being planned.

In terms of process, planning should ultimately be allowed to be tailored to local conditions, not withstanding the points made above. In view of past experience, it would seem that a two or three year planning cycle would be most appropriate. This would provide enough time for the process to work, for paper flow and review to take place, and for some degree of implementation and evaluation before planning needs to again be vigorously initiated. The federal legislation should encourage state staff to provide the necessary technical assistance for planning to local educational agencies. This support might come in the form of training and technical information, but also in a clear set of goals by the state agency which can be used for guidance in local planning. State goals should be encouraged to include attention to federal goals for vocational education.

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